Vector-valued Newton-Sobolev spaces

Alberto Ruiz de Alarcón Torregrosa

A great development of analysis on metric spaces has been taking place during the last years, with numerous contributions and applications. An essential tool in this field are Newton-Sobolev spaces, which constitute a natural framework for many important results. We present the main notions and results on those kinds of spaces for vector-valued funcions, that is, functions which are defined on metric spaces taking values in Banach spaces, and its relation with classical vector-valued Sobolev spaces.